AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application.

1-41. (Canceled).

42. (Currently Amended) An oligonucleotide comprising at least one concatenation coding for a polypeptide with formula $(P\text{-}K)_n$, where:

n is equal to 3, or more;

P represents a proline amino acid residue;

K represents a lysine amino acid residue;

the symbol "-" represents a bond between the two amino acid residues, in particular a peptide-type bond, the n (P-K) units also being bonded together by such bonds, for example peptide-type bonds, wherein the sequence of n (P-K) units is interrupted by one or more amino acid residues other than P or K residues.

43. (Previously Presented) The oligonucleotide according to claim 42, comprising a concatenation coding for a polypeptide with formula $(P\text{-}K)_n$, where n is a whole number equal to 3, 4, 5, 6, 7, 8, 9, 10, or 15.

44. (Canceled).

45. (Previously Presented) The oligonucleotide according to claim 42, wherein the concatenation coding for the polypeptide comprising the n (P-K) units is completed at its 5' end and/or at its 3' end by one or more codons coding for at least one lysine residue at the N-terminal extremity of the formed polypeptide.

46. (Previously Presented) The oligonucleotide according to claim 45, which codes for a polypeptide with formula $K-(P-K)_4$ or with formula $2K(P-K)_4$.

47-50. (Canceled).

51. (Withdrawn) The nucleotide sequence according to claim 48, wherein the coding nucleotide concatenation codes for a protein reserve naturally produced by a plant from the legume or crucifer family.

52-55. (Canceled).

56. (Withdrawn) The nucleotide sequence according to claim 48, wherein the coding nucleotide concatenation codes for a protein reserve of a plant selected from the following: soya, sunflower, tobacco, wheat, oats, alfalfa, rice, oilseed rape, sorghum, and Arabidopsis

thaliana.

57-64. (Canceled).

65. (Withdrawn) A polypeptide coded by a sequence according to claim 47.

66. (Withdrawn) A lysine-enriched modified maize γ-zein, which is coded by a nucleotide sequence according to claim 54.

67. (Withdrawn) A lysine-enriched modified maize γ-zein, the amino acid sequence of which is modified by at least one polypeptide with formula $(P\text{-}K)_n$ or with formula $2K(P\text{-}K)_n$, where:

n is a whole number of 2 or more;

P represents a proline amino acid residue;

K represents a lysine amino acid residue;

the symbol "-" represents a bond between the two amino acid residues, in particular a peptide type bond, the n (P-K) units being bonded together by bonds, in particular peptide type bonds, said polypeptide having formula $(P\text{-}K)_n$ or $K\text{-}(P\text{-}K)_n$ being substituted for a sequence naturally present in the normal maize γ-zein or being inserted with deletion of one or more amino acids of the amino acid

sequence for normal maize γ-zein, or being added to the normal γ-zein amino acid sequence, the insertion site for the polypeptide being selected such that:

when the modified lysine-rich γ-zein is produced in a host cell, in particular in a plant cell, it is localized in identical or similar manner to the normal maize γ-zein which would be produced under the same conditions in the same host cell; and/or

the modified maize γ-zein is recognized by antibodies directed against the normal maize γ-zein.

68. (Withdrawn) The modified maize γ-zein according to claim 67, which is the protein P20γZ or the protein H30γZ or the protein H45γZ.

69-75. (Canceled).

76. (Withdrawn) The host cell according to claim 71, which is a soya, sunflower, tobacco, wheat, oats, alfalfa, rice, oilseed rape, sorghum or Arabidopsis cell.

77-83. (Canceled).

84. (New) An oligonucleotide having at least one concatenation coding for a

polypeptide with formula $(P\text{-}K)_n$, where:

n is equal to 3, or more;

P represents a proline amino acid residue;

K represents a lysine amino acid residue;

The symbol "-" represents a bond between the two amino acid residues, in particular a peptide-type bond, the n (P-K) units also being bonded together by such bonds, for example peptide-type bonds.

85. (New) The oligonucleotide according to claim 84 having a concatenation coding for a polypeptide with formula $(P\text{-}K)_n$ where n is a whole number equal to 3, 4, 5, 6, 7, 8, 9, 10 or 15.

86. (New) An oligonucleotide, having a concatenation coding for a polypeptide with formula $(P\text{-}K)_n$ according to claim 84, in which the sequence of n (P-K) units is interrupted by one or more amino acid residues other that P or K residues.

87. (New) The oligonucleotide according to claim 84, wherein the concatenation coding for the polypeptide comprising the n (P-K) units is completed at its 5' end and/or at its 3' end by one or more codons coding for at least one lysine residue at the N-terminal extremity of the formed polypeptide.

88. (New) The oligonucleotide according to claim 87, which codes for a polypeptide with formula K-(P-K)$_4$ or with formula 2K(P-K)$_4$.

89. (New) A recombinant nucleotide sequence comprising a concatenation of nucleotides coding for a plant protein which further comprises an oligonucleotide according to claim 42 or to claim 84, inserted at one site of the nucleotide concatenation selected such that:

i) expression of the nucleotide sequence in a particular plant cell enables a modified protein reserve to be produced, wherein said protein reserve is localized in that cell in a manner identical to or similar to the normal protein reserve which would be expressed in the same cell under the same conditions by the corresponding normal coding nucleotide concatenation; and/or

ii) the modified protein reserve coded by the recombinant nucleotide sequence is immunologically recognized by antibodies produced against the corresponding normal protein reserve,

wherein said protein reserve is a maize γ-zein of 28 kDa.

90. (New) The nucleotide sequence according to claim 89, wherein the nucleotide concatenation coding for the maize γ-zein has the sequence as defined in SEQ ID NO:6.

91. (New) The nucleotide sequence according to claim 89, wherein the protein reserve encoded by the coding nucleotide concatenation is maize γ-zein, and wherein the oligonucleotide is inserted in place of or following a Pro-X domain or in a Pro-X domain naturally present in the maize γ-zein.

92. (New) A recombinant nucleotide sequence, which comprises a nucleotide sequence according to claim 89 under the control of an expression promoter.

93. (New) The recombinant nucleotide sequence according to claim 92, wherein the promoter is a specific promoter for a given cell tissue, for example a promoter which is specific for expression in grains, and/or in the leaves of plants.

94. (New) The nucleotide sequence according to claim 92, wherein the expression promoter is that of maize γ-zein.

95. (New) The nucleotide sequence according to claim 92, wherein the expression promoter is the promoter CaMV35S.

96. (New) The nucleotide sequence according to claim 91, which codes for one of

the polypeptides P20γZ or H45γZ with the sequences as defined in SEQ ID NO:9 or SEQ ID NO:11, respectively.

97. (New) A cloning and/or expression vector, which comprises, at a site which is not essential for replication, a nucleotide sequence in accordance with claim 89.

98. (New) A cloning and/or expression vector, which is one of plasmids pP20γZ (CNCM N° I-1640), pH30γZ or pH45γZ (CNCM N° I-1639).

99. (New) A recombinant host cell, which comprises a nucleotide sequence according to claim 89.

100. (New) The host cell according to claim 99, which is a bacterium, for example *E. coli* or *Agrobacterium tumefaciens*.

101. (New) The host cell according to claim 99, which is a plant cell.

102. (New) The host cell according to claim 101, which is a plant seed cell.

103. (New) The host cell according to claim 102, which is a cell from maize seed

endosperm.

104. (New) The host cell according to claim 103, which contains a nucleotide sequence according to claim 89, integrated in its genome in a stable manner.

105. (New) The host cell according to claim 103, which produces a lysine-enriched modified maize γ-zein encoded by the nucleotide sequence according to claim 89.

106. (New) Seeds producing a polypeptide encoded by the recombinant nucleotide sequence according to claim 89.

107. (New) A plant producing a polypeptide encoded by the recombinant nucleotide sequence according to claim 89, which is a maize γ-plant.

108. (New) Seeds obtained from plants according to claim 107.

109. (New) A method of producing plants or seeds expressing a modified protein reserve, which comprises the steps of:

a) transforming a plant cell with a nucleotide sequence according to claim 89, or a

vector according to claim 97, under conditions enabling the modified protein reserve coded by the nucleotide sequence to be expressed in a stable and functional manner;

b) regenerating plants from the plant cell transformed in step a), to obtain plants expressing the modified protein reserve;

c) if necessary, obtaining seeds from the modified plants obtained in step b), wherein said plant is maize.

110. (New) The nucleotide sequence according to claim 89, wherein the oligonucleotide is inserted following or in place of a primary structure having tandem repeats rich in proline residues.